CBS NEWS -WINGS IN SPACE - STS-1 LAUNCH COUNTDOWN (4-9 -1981)

https://www.youtube.com/watch?v=BwCVN95CTfQ (https://www.youtube.com/watch?v=BwCVN95CTfQ)

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From Thursday, April 9th, 1981CBS NEWS SPECIAL report on the final countdown of the maiden flight of the Space Shuttle Columbia. Columbia was scheduled to take off on Friday, April 10th at 6:50 A.M E.T. However, due to technical issues was postponed 48 hour and successfully took off at 7:00 A.M E.T on Sunday, April 12th, 1981.

The STS -1 Crew:

Commander: John W. Young
Pilot: Robert L. Crippen

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wings in space the frost flight of the shuttle here again is dan rather good evening astronaut jung and krippen assigned to take the columbia into orbit and fly her back to earth went to bed at four in the afternoon to get a full sleep before their mission waiting for them to wake up was a message from president reagan saying you go in the hand of god and adding through you today we all feel as giants once again the astronauts are scheduled to orbit the earth 36 times returning from space on sunday afternoon some 54 hours after launch weather had been a concern at the space center earlier this week but the forecast now is good no late hitches have developed in the countdown and the control and launch crews are ready in the firing room the controllers are at their computer consoles monitoring the countdown and the spaceship if all goes well it will look something like this two solid fuel rockets at the side three engines in the space shuttle's tail they'll all be firing for the first two minutes of the flight then the solid rockets burn out and are cut loose they'll be parachuted to the ocean some 150 miles downrange where tugboats will recover them for reuse eight and a half minutes after launch the main shuttle engines are cut off and the giant fuel tank is jettisoned the tank will break up in the atmosphere with fragments landing in the indian ocean the shuttle continues into orbit and aboard two men who have trained long and hard for this mission morton dean reports now on the astronauts who will fly this craft in space for the first time if there's a mister space in the astronaut corps john young is it he's officially the chief astronaut in charge of all the others this shuttle flight is his fifth space

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this shuttle flight is his fifth space mission no other astronaut can match that record he's 50 years old now he first went into space when he was 34. he's never been the traditional kind of astronaut he's made nasa's stiff upper lip droop on a number of occasions on his very first flight when he violated regulations and carried a corned beef sandwich along how did he find out about that later when he was on the moon when he accidentally kicked a cable and destroyed one of apollo 16's major experiments i'm sorry charlie still later during that mission when he uttered several expletives that he thought were being deleted but his mic was open all right i haven't eaten this much citrus fruit in 20 years can i tell you one thing another 12 days his sense of humor has been more than equaled by his sense of purpose and his dedication he was on the moon when he learned that the congress had okayed the space shuttle program this looks like a good time for some good news here the house passed a space budget yesterday 277 to 60 which includes the vote for the shuttle right there young who was born in san francisco was brought up in orlando just a brief rocket ride down the road from the shuttle launch pad he flew for the navy he's retired from the service now and he was a test pilot in fact he still is a test pilot for nasa we're told that test pilots uh aren't frightened by doing their job testing new vehicles well when you when you get on top of a spacecraft a spaceship that's uh loaded with liquid hydrogen liquid oxygen and has those big solid rocket motors the world's biggest uh to fire and uh that's a lot of explosive and if you're not a little bit of apprehensive about launch uh it's my opinion you don't understand that problem uh people don't understand test bottles

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uh people don't understand test bottles biggest chickens around i think that the pilots are the ones that primarily because they do understand the kind of problems you can get into spend a great amount of time trying to figure out how to get out of those problems and how to get around them young's partner on this flight bob is a navy captain he's 43 and from texas he's been an astronaut for 11 years but this is his first space flight crippen sees this flight as more than just the end of a long wait more than just the dawning of a new era in space travel he sees it as a boost for the national ego there has been a little bit of morale problem i think in the united states we haven't had too many things to really be proud of we've had our economic problems problems with oil and gasoline the hostage problem we just went through we really need something to be proud of and i think that with the flight of the space shuttle it is going to give at least a focal point that everybody in the united states can indeed be proud of morten dean cbs news johnson space center houston we'll be back in a minute with a close-up look at the space shuttle columbia three main components to the space shuttle solid rocket boosters external tank the arbiter itself you've heard a lot of talk about potential dangers here are some of them first the solid rocket boosters they have to be firing together they have to keep on firing together if only one of them fires or one of them stops firing that could be catastrophic the three main engines of the arbiter itself rear view this represents new technology three times the pressure that was inside the apollo engines for example another potential danger spot the payload bay doors they must open to let heat out from within the spaceship the doors must be closed in order for the spaceship and the astronauts to re-enter the earth safely insulation in order to keep the spaceship from

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in order to keep the spaceship from burning up it has to be insulated the insulation on this spaceship most of it on the bottom made up of more than thirty thousand tiles between thirty thousand and thirty one thousand tiles such as this one this is the inside this is the outside those tiles will undergo tremendous pressure tremendous vibration on liftoff they have to keep themselves together and that insulation has to remain intact the astronauts live and work in here wharton dean shows us the inside i'm sitting in the cockpit of a mock-up of the space shuttle and i pulled rank on one of the astronauts i'm sitting where the commander of a mission would sit and dr anna fischer astronaut is sitting where the pilot would sit dr fisher this looks something like the cockpit of a jetliner but not quite well i think one of the most striking differences is just looking around and seeing all the numerous switches and circuit breakers uh there's something on the order of over 2000 different switches what about these screens these television screens here i guess on some commercial jets you find them we'll find something similar to that these are our cathode ray tubes or crts they are the primary means by which we get information from the onboard computers we have five computers on board and this panel right here in the center one for the commander one for the pilot is the means by which we request certain displays that give us information on how our systems are doing or our trajectory and it's how we can enter uh information to the computers uh one of the other i guess major differences in this cockpit that would be different from a commercial uh cockpit is the presence of our ejection seats um that tends to make the cockpit a bit crowded eject in space but but on the way down and on the way up below 120 000 feet uh so the astronauts on board are going to be doing some work back there also on the back of this cockpit why don't we go take a look yeah you lead the way all right i don't know if i can get out the way you're getting huh you're gonna give it a try you get out

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you're gonna give it a try you get out so easily here what do i do just put my leg up here so here what will the uh astronauts be doing on this side of the panel you can actually fly the vehicle as well as from the front forward cockpit the pilot can be here and can actually maneuver the vehicle while the mission specialist is operating on the right hand side of the panel the remote manipulator system which is the arm that lifts things into and out of the payload bay okay and these windows we're we're looking out towards the payload we're looking right now windows here looking directly out into the payload day where we will be carrying cargo uh things such as satellites space telescopes things like that what's gonna happen in the airlock dr fisher okay this is the airlock this is where the two suits for going out and doing a spacewalk are stowed basically you come in get into the suits close your hatch that connects to the crew module so that you don't depressurize it depressurize the air lock and open this hatch and go outside well let's give it a try from the inside into the airlock into the outside my understanding is that on this first mission at least the astronauts or one astronaut will only come out if there's an emergency and these having opened these uh payload bay doors they won't close then he comes out and does what that's correct uh on the first actually the first four test flights they're not planning on doing an eva or spacewalk we have certain contingency procedures to close the doors manually if they don't close or to latch them if the latches don't work and that's important because i don't think the shuttle can come back with these doors open that's correct this will carry up to 65 000 pounds of uh payload yes sir okay so we're getting out now into what is your uh rec room a living room bedroom kitchen otherwise known as the mid deck otherwise known as the midtech what do we have here these are all of our stowage containers where all of the equipment that we're going to be using on orbit will be stowed um

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to be using on orbit will be stowed um food your drawers for your clothing sleeping bag and your towels and they're all labeled let's go back to the food for a minute let's see if we can get a food tray out and take a look here okay okay you got that sure there we go you've been telling me all this will be much easier up there than it is down here because certainly yeah this is just um there are two drawers in here this is one of our cups that you would be using for on orbit for the first few flights you would use that little water dispenser over here on the wall just fill it up with water fills it right up well then you can drink it each meal is contained in a package and they're labeled according to days and whether it's the commander the pilot and um it's fairly nice variety of meals you get what you want when they're up there i suppose you can well not exactly what you want but within reason they've tried to make the food palatable and it's really pretty good let's take a look uh let's take a guess here personal items that sounds kind of interesting doesn't it i don't think anyone will mind that this is where they'll be storing their clothing what do we got here this is the the foot restraints they kind of just fit onto the bottom of your boots as you can see here's a loop that's stove they'll sit on the bottom of your boots and they have suction cups and that's the way that you'll restrain yourself uh when you're trying to do some work now i see here it says where does it say sleep i know you're not going to crawl into one of these no for the again for the test flights or even in the operational era if for some reason they decided they wanted to do that you'll be able to use these sleeping bags which you just sort of you know what you just what you do is you just hook it in to one of these little slots here they have a pin that fits in that way you have yourself restrained so that you don't float around and you can just get inside i think you ought to explain that it doesn't matter whether you sleep standing up or not again in zero gravity there is no up or down and just as long as you're

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up or down and just as long as you're restrained so that you don't float around uh they found in skylab that you're fairly comfortable some of the crewmen even in skylab didn't mind floating around but you don't want to bump into any equipment that you might damage well up here good night yeah but this crew has decided to rough it and sleep in their ejection seats we'll be back in a couple of minutes for reports on columbia's landing sites [Music] the primary landing site for the columbia is a dry desert lake bed at edwards air force base in california terry drinkwater filed this report re-entry is hot the tiles on the belly of the shuttle are there to keep it from burning up like a meteor as it hits the dense atmosphere the first test craft landed here on the mojave desert with few problems it was released from a 747 at a relatively low altitude but coming back from space is immeasurably more difficult the columbia is really a glider that weighs 75 tons in a smaller craft modified to maneuver like the shuttle young and crippen have practiced their descent far steeper than a commercial jet if all goes well the shuttle will touch down at nearly twice the landing speed of a dc-9 the dry lake bed is hard a runway more than five miles long nasa has finished the last full-scale rehearsal for the landing excess fuel and potentially explosive fumes will be sucked out of the shuttle an air conditioning unit will be plugged in to get rid of heat buildup during reentry a fan will be standing by to blow away poisonous gases the protective suits of the technicians will have to be washed down then finally the astronauts will emerge to be cheered no doubt by the thousands who will come to watch they will each then undergo physicals the shuttle itself will be minutely examined partly refitted

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examined partly refitted and then flown atop the 747 back to the cape for the next launch the desert weather forecast is good for the scheduled landing sunday and for one earlier should there be trouble terry drinkwater cbs news edwards air force base california if weather conditions or technical problems prevent the space shuttle from sitting down in california an alternate landing site is the white sands missile range in new mexico hurricane berg is there just in case historic firsts are not totally new to the white sands area 60 miles from where the shuttle landing site is now located is trinity place where the united states set off the first atomic bomb in a test in 1945 all that remains of ground zero are the stubby remnants of the tower where the bomb was exploded not far away a new tower stands overlooking two 35 000 foot landing strips and not much else northrop strip is a standby runway for use if the weather is bad in california and for some types of emergency landings especially on the first orbit the astronauts who have practiced here often in jet planes would follow visual cues on the runway a triangular marker and lights on the surface of hard-packed gypsum which is a sand-like material covering the desert nasa assigned a bargain basement recovery force to white sands it can rescue the astronauts but not cool or de-fuel their spacecraft the technicians here space-age bedouins who barely make an imprint on the desert know they are the bench not the first team does that make it hard to get ready i think like most folks here we haven't looked at it that way we assume we're the first team and if it comes we're gonna do the job nasa spent two million dollars here all on insurance the crash teams recovery teams photo teams will be ready but know that if all goes well they won't be needed eric engberg cbs news northrop strip white sands missile range new mexico

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white sands missile range new mexico in addition to california new mexico and the kennedy space center itself three other landing sites have been designated necessary for landing in case of a premature de-orbit in the uq islands of japan in rota spain and at hickam air force base in hawaii our report from florida will resume in a minute the cost of the shuttle program has caused considerable debate in 1971 the space agency estimated it would cost just more than five billion dollars to develop and test the shuttle but cost overruns and inflation now have almost doubled that estimate after this flight three more shuttle test flights are planned then the space agency hopes to put the shuttle to work its chores include putting into orbit and servicing all manner of satellites including military ones in 1983 the shuttle is scheduled to put a space laboratory into orbit more on that from steve young space lab will resume the work pioneered by america's first earth orbiting space station sky lab we have roughly 40 experiments covering a number of disciplines astronomy life sciences material sciences and if you count all the variations of these experiments you can get up to close to 80. specialists who go up on early space lab missions will have to return with the laboratory after only seven working days in space compared with skylab missions that ran up to three months so it's a frustration it's it's an it's i like to compare it to the camper mode of doing things we're sort of going out and staying in a camper rather than going off to a factory to work the space agency expects that by 1985 shuttle will take the space telescope into orbit it should be able to see seven times farther than telescopes on earth to the distance light travels in 14 billion years perhaps the very edge of the universe and the beginning of time one of shuttle's selling points was that space lab could help demonstrate manufacturing procedures

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manufacturing procedures impossible on earth and make them cheap enough for industry to exploit mcdonnell douglas corporation and a division of johnson and johnson hope by 1987 to have an automated factory in space 500 times more efficient than earthbound versions producing rare serums for the treatment of human disease at an enormous profit a reasonable size um market in one of these particular products you're probably talking better than it could be better than 100 million annually in sales most corporations are more cautious about industry's future in space got to figure out you know what is the risk what is the front-end investment uh what are the operating costs and that sort of thing and there just isn't enough information right now to answer those questions further down the road nasa envisions far out concepts made possible by a machine called a beam builder a prototype exists right now carried up by the shuttle the beam builder could manufacture girders needed for huge structures since space has no gravity the beams wouldn't have to be strong enough to avoid collapsing under their own weight a vast lattice work of beams could support giant antennas making wrist radio communication with satellites possible 50 square mile solar power stations could each send to earth as much energy as 10 nuclear power plants the space agency is convinced that shuttle will make it possible to achieve such visionary schemes ideas which seem like science fiction a few years ago they are certainly things that could be and i believe they're things that will be the only question that i think that i have is who will do it in the not too distant future there will be continuous habitation in space and useful things being done in space to the benefit of all of us here on on earth if shuttle is successful nasa believes it could change space from an exclusive club for astronauts to a place where thousands of people

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to a place where thousands of people live and work steve young cbs news at the marshall space flight center in huntsville alabama we'll be back in a minute to talk with some experts on the shuttle program with me tonight here at the kennedy space center are two men who are experts on space and whose advice we'll be getting throughout our coverage alan bean who walked on the moon in 1969 is part of apollo 12 and our old friend leo krupp the rockwell research pilot for the shuttle and before that for apollo gentlemen i know you think this is going to work you're optimistic about it but when you worry albin what is your number one worry well i guess my number one worry would be something we haven't thought of yet dan everything we've thought of we think we've got engineers smart enough to figure out what to do now is there anything on the solid rockets or external tank or orbiter itself that we haven't thought of well we don't think there is but we're going to find out in the next few days it's leo krupp what's your number one worry well i feel like like al uh we've tried to program everything we could think of we've looked at all the possible failures that could happen and we've had workarounds for them and uh but from a pilot standpoint i guess my major concern would be the the ascent because that is the period of the flight when the pilot is time critical on everything that happens and he doesn't have time to get help from the ground now if we have a problem after we get into orbit we have experts in houston and in rockwell and all the other contractors who will support the crew analyze the problem provide them a workaround in the simulators and come up with a solution for them but if something happens on ascent the pilots must react very rapidly and correctly why do it if it works if everything goes reasonably well the spaceship gets back the astronauts get back to what end well dan it's been six years since we've had a man in space

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had a man in space and the russians have been up there frequently and they've been completing all of their objectives many of which we can anticipate our military objectives and for this country to maintain its national security as well as progressing our technology i think it's essential that we keep uh keep progressing in space in man space albin why do it well i do it well if you believe the world's a better place than it was a hundred years ago a thousand years ago i personally do you have to ask yourself why mostly it's because technology is better we can make people live longer we can give them happier lives and everything else space shuttle is just one thing that improves technology improves the progress of man i think that it'll be a better world in the future and i think one of the reasons is space shuttle's around and it's going to move things forwards very quickly leo croft are the soviets correct when they say that we're doing this mostly for military purposes no not at all dan this this is going to be a working vehicle it's going to become the dc3 of the space age and it's going to be completely in earth orbit and we're going to get a lot of technology a lot of manufacturing medical benefits out of this program it's going to be a it's going to be a working tool for the for the country it will have some military applications which we must realize and and they're very important but it's going to be the the working tool of the space and it's just like aviation started uh no one could imagine what aviation was going to involve in back before world war one and no one can imagine what the the space shuttle and the space endeavor is going to evolve into how bean do you wish you were going yeah i wish i were going and i think everybody in our office we got about 82 astronauts now and i think every one of them wish they could trade places with either john young or bob crippen we only have a few seconds left they're going to be frightened up there in the morning are they none i don't think so but they're going to be anxious and alert and uh ready to do i think you're never afraid for your life you always want to say to yourself do i know what to do if

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say to yourself do i know what to do if anything goes wrong am i fully prepared and i think john and have said several times that they are and they're ready we're we're all confident we're real happy that tomorrow's finally got here thank you very much gentlemen we look forward to working with you in the morning so all is in readiness tonight for the launch of the space shuttle columbia and the countdown at last report was proceeding smoothly toward america's new space venture cbs news coverage of the liftoff will begin at 6 30 eastern time in the morning until then dan rather cbs news at the kennedy space center good night this has been a cbs news special report [Music] wings in space the first flight of the shuttle this is

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